

REMARKS

Upon entry of this amendment, claims 37-43 are all of the claims pending in the application. Claim 43 has been added as a new claim. No new matter has been added.

Applicants would like to thank Examiner Andy Rao for the courtesies extended to Applicants' representatives during the personal interview conducted on March 3, 2010. During the interview, the claims and applied prior art references were discussed. In this regard, Applicants note the claim changes presented herein, which have been made in order to clarify the claims, are the same as those discussed during the interview.

In addition, Applicants note that during the interview, it was discussed that Applicants intended to disqualify the Narasimhan et al. reference (US 2005/0175098) as prior art against the present application. Please note, however, that rather than disqualifying the Narasimhan et al. reference as prior art, Applicants are presenting the comments below for distinguishing the claims of the present application over the Narasimhan et al. reference.

I. Claim Rejections under 35 U.S.C. § 103(a)

Claims 37-42 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kadono (US 2005/0147375) (hereafter "Kadono") in view of Narasimhan et al. (US 2005/0175098) (hereafter "Narasimhan").

Claim 37, as amended herein, recites the features of a first coding unit operable to code the first supplemental information in which picture type information of each of pictures included in a random access unit is arranged in decoding order of the pictures; a second coding unit operable to code the second supplemental information in which picture structure information of each of the pictures included in the random access unit is arranged in the decoding order of the

pictures; a generating unit operable to generate a moving picture stream by storing the coded first and second supplemental information into the supplemental information storage unit in the first I-picture, wherein the picture structure information of the respective pictures includes information indicating whether the picture structure of each picture is a field structure, a first frame structure, or a second frame structure, wherein the first frame structure is for displaying the picture using two display fields, and wherein the second frame structure is for displaying the picture using three display fields by repeatedly displaying the first display field at the time of using 3-2 pull down.

Thus, according to claim 37, a first I-picture in decoding order within a random access unit includes picture type information and picture structure information which relate to the pictures within the random access unit.

Applicants respectfully submit that the combination of Kadono and Narasimhan does not teach, suggest or otherwise render obvious the above-noted features recited in amended claim 37 for the following reasons.

First, with respect to Kadono, Applicants note that this reference discloses a configuration in which information associated with picture numbers is placed at the top of a random access unit (see paragraph [0078]). In this regard, however, Applicants note that Kadono merely discloses the ability to code a single kind of information.

As such, Applicants submit that Kadono does not disclose or suggest the above-noted features recited in claim 37 directed to arranging two kinds of information (i.e., picture type information and picture structure information) of the pictures in a random access unit at the top of the random access unit.

Second, with respect to Narasimhan, Applicants note that this reference discloses a coding method which utilizes supplemental enhancement information (SEI). For example, a configuration is disclosed in Narasimhan in which, in the case where a “film_mode_present” flag is on, the stream is analyzed by using the picture-structure in the picture-timing SEI that is added to each picture (see paragraphs [0076] and [0082]). In other words, Applicants note that Narasimhan requires that each picture be read in order to obtain picture structure information.

As such, Applicants respectfully submit that Narasimhan does not disclose or suggest the above-noted features recited in claim 37 directed to arranging two kinds of information (i.e., picture type information and picture structure information) of the pictures in a random access unit at the top of the random access unit.

In this regard, it is noted that in the case where each picture is provided with information, that the processing load for decoding the picture is heavy because of the need to read out each picture, and determine whether or not the picture can be used for special playback. In contrast, by providing the above-noted features recited in claim 37, Applicants note that it is possible to reduce the processing load for decoding by adding information of the respective pictures within a random access unit to the first picture, instead of adding such information on a picture by picture basis.

Further, it is noted that the above-noted features recited in claim 37 provide the advantageous effect of providing picture type information and picture structure information necessary for playing back the pictures within the random access unit in advance for the playback. These two kinds of information (i.e., picture type information and picture structure information) can show, for example, whether or not a current picture is a picture at which jump-

in playback can be started at the time of using 3-2 pull down, and possible playback speeds at the time of using 3-2 pulldown.

In view of the foregoing comments, Applicants respectfully submit that the combination of Kadono and Narasimhan does not teach, suggest or otherwise render obvious the above-noted features recited in claim 37 of a first coding unit operable to code the first supplemental information in which picture type information of each of pictures included in a random access unit is arranged in decoding order of the pictures; a second coding unit operable to code the second supplemental information in which picture structure information of each of the pictures included in the random access unit is arranged in the decoding order of the pictures; a generating unit operable to generate a moving picture stream by storing the coded first and second supplemental information into the supplemental information storage unit in the first I-picture, wherein the picture structure information of the respective pictures includes information indicating whether the picture structure of each picture is a field structure, a first frame structure, or a second frame structure, wherein the first frame structure is for displaying the picture using two display fields, and wherein the second frame structure is for displaying the picture using three display fields by repeatedly displaying the first display field at the time of using 3-2 pull down.

Accordingly, Applicants submit that amended claim 37 is patentable over the cited prior art, an indication of which is kindly requested.

Regarding claims 38-43, Applicants note that each of these claims recites similar features as those described above in claim 37, and are therefore also considered to be patentable over the cited prior art.

In particular, Applicants note that claims 38 and 41, as well as new claim 43, recite the features of a first coding step of coding the first supplemental information in which picture type information of each of pictures included in a random access unit is arranged in decoding order of the pictures; a second coding step of coding the second supplemental information in which picture structure information of each of the pictures included in the random access unit is arranged in the decoding order of the pictures; and a generating step of generating a moving picture stream by storing the coded first and second supplemental information into the supplemental information storage unit in the first I-picture, wherein the picture structure information of the respective pictures includes information indicating whether the picture structure of each picture is a field structure, a first frame structure, or a second frame structure, wherein the first frame structure is for displaying the picture using two display fields, and wherein the second frame structure is for displaying the picture using three display fields by repeatedly displaying the first display field at the time of using 3-2 pull down.

Further, with respect to claims 39 and 40, Applicants note that these claims recite the features of an analyzing unit operable to separate the first supplemental information in which picture type information of each of pictures is arranged in decoding order of the pictures and the second supplemental information in which picture structure information of each of the pictures is arranged in the decoding order of the pictures which are included in each of random access units, from the supplemental information storage unit of a first I-picture on a random access unit basis, wherein the picture structure information of the respective pictures includes information indicating whether the picture structure of each picture is a field structure, a first frame structure, or a second frame structure, wherein the first frame structure is for displaying the picture using two display fields, and wherein the second frame structure is for displaying the picture using

three display fields by repeatedly displaying the first display field at the time of using 3-2 pull down.

Lastly, with respect to claim 42, Applicants note that this claim recites that in the stream recording on the recording medium, the first supplemental information in which picture type information of each of pictures is arranged in decoding order of the pictures and the second supplemental information in which picture structure information of each of the pictures is arranged in the decoding order of the pictures which are included in a random access unit stored in a supplementary storage unit of a first I-picture, the picture structure information of the respective pictures includes information indicating whether the picture structure of each picture is a field structure, a first frame structure, or a second frame structure, the first frame structure is for displaying the picture using two display fields, and the second frame structure is for displaying the picture using three display fields by repeatedly displaying the first display field at the time of using 3-2 pull down.

In view of the foregoing features recited in claims 38-43, Applicants respectfully submit that claims 38-43 are patentable over the cited prior art for similar reasons as discussed above with respect to claim 37.

II. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited.

If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below

Respectfully submitted,

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